EXHIBIT E

GP 260

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Examiner: M. Jung

Group Art Unit: 263

2-21-89

Re: Patent Application of
Jon CHAO et al. 1-3-2
Serial No. : 118,997
Filed : November 10, 1987
For : DYNAMIC TIME DIVISION MULTIPLEXING

AMENDMENT

Hon. Commissioner of Patents and Trademarks

Washington, D.C. 20231

Sir:

In response to the Office Action of November 25, 1988, please amend the above-identified application as follows:

IN THE TITLE

Please delete the present title and insert therefor -- Method and Apparatus for Multiplexing Circuit and Packet Traffic --.

IN THE SPECIFICATION

Do not enter MJ 9/14/89.

Page 14, line 9, delete "45" and insert therefor -- 47 --.

IN THE CLAIMS

1. (Amended) A method for transmitting circuit and packet data in a telecommunications network comprising the steps of:

generating a bit stream comprising a sequence of frames, each of said frames including a transmission overhead field containing frame timing information and an empty payload field, and

filling the empty payload fields in said frames with data in packetized format from a plurality of sources which have access to the bit stream including circuit or packet sources.

3. (Amended) A method for generating a bit stream capable of transporting data originating from both circuit transmission and packet sources comprising

generating a bit stream comprising a sequence of frames, each of said frames including a transmission overhead field containing frame timing information and an empty payload field,

packetizing data from a plurality of sources which have access to said bit stream including circuit transmission [bit streams] sources or customer premises equipment to produce data packets, and

inserting said packets into [said] the empty payload fields of said frames.

4. (Amended) An apparatus for assembling a dynamic time division multiplexing bit stream comprising,

means for generating a train of frames wherein each frame includes a transmission overhead field containing timing information and an empty payload field,

means for processing data from a plurality of sources into packet format, and

means for receiving said train of frames and for inserting said packets comprised of data from said plurality of sources into empty payload fields of said frames to form said bit stream.

5. An apparatus for assembling a bit stream for transmitting data from a plurality of sources comprising:

means for generating a train of frames, each of said frames including a transmission overhead field and an empty payload field, and

a plurality of interfaces, each of said interfaces serving to interface one of said sources with said train of frames, each of said interfaces comprising:

packetizing means for converting data into data packets,

memory means for storing at least one of said packets formed by said packetizing means, and

circuit means for inserting a packet stored in said memory means into an empty payload field of one of said frames.

6. The apparatus of claim 5 wherein [all of said circuit means are connected in a chain] said interface units are connected to one another serially and wherein said frames are passed sequentially to each of said interface units to receive said packets in said empty payload fields.

Cancel claim 7.

8. (Amended) An apparatus for disassembling a bit stream comprising data packets contained in frames and for routing data contained in said packets to appropriate customer premises equipment, said apparatus comprising:

a plurality of interface units, each of said interface units being adapted to interface said bit stream with an associated unit of customer premises equipment, each of said interface units comprising:

circuit means for receiving each frame in said bit stream and for determining if each frame contains a data packet including data to be routed to the associated unit of customer premises equipment, and

memory means coupled to said circuit means for storing data packets to be routed to the associated unit of customer premises equipment.

Cancel claims 11, 12, and 13 (without prejudice).

Please add the following claim.

14. The apparatus of claim 4 wherein said sources include circuit transmission bit streams or customer premises equipment.

REMARKS

The Office Action of November 25, 1988 has been carefully considered. Claims 1-6, 8-10 and newly added claim 14 are pending in this application. Claims 7 and 11-13 have been cancelled. Claims 1, 3, 4, 5, 6, and 8 have been amended herein.

In the Office Action, the Examiner has denied applicants' traversal of an earlier restriction requirement in this application. In order to expedite prosecution, applicants acquiesce to the restriction requirement. Accordingly, claims 11-13 are cancelled without prejudice. Applicants reserve the right to renew prosecution of claims 11-13 in a divisional application.

The Examiner has also objected to the title of the application. In response, the title of the application has been changed by way of this amendment so that it is more indicative of the inventive subject matter.

In the Office Action, the Examiner has identified an error in FIG 3. Accordingly, a proposed drawing correction is being submitted herewith. A corrected formal drawing will be supplied upon receipt of a Notice of Allowance in accordance with standard procedures The corresponding error in the specification has also been corrected.

In the Office Action, the Examiner has rejected claims 6-10 under 35 U.S.C. 112. In response to this rejection, claims 6 and 8 have been amended to more particularly point out the claimed subject matter. Claim 7 has been cancelled because it is

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duplicative of claim 6 as amended. It is respectfully submitted that claims 1-6 and 8-10 as amended and claim 14 comply in all respects with the requirements of 35 U.S.C. 112.

The Examiner has also rejected previously pending claims 1-10 as unpatentable over Baran et al.,U.S. Patent 4,771,425. In response to this rejection, independent claims 1, 3, 4 and 5 have been amended to clarify the inventive subject matter. The rejection is respectfully traversed with respect to independent claim 8.

Before discussing the Examiner's rejection, it may be helpful to briefly discuss the claimed subject matter as set forth in the claims as amended.

It is an object of the present invention to provide a flexible network transport system for transmitting both circuit and packet traffic. Typically, circuit networks utilize time division multiplexing (TDM) as a transmission technique. When TDM is used, each data stream comprises frames which are subdivided into slots. Corresponding slots in each frame are allocated to specific connections. For example, the first slot in each frame is allocated to one specific connection, and the second slot in each frame is allocated to a second specific connect. Each frame also includes transmission overhead information including a frame synchronization signal. In a circuit transmission system, a combination of space division switching and time division switching is utilized at the network switches to swap time slots between various bit streams so that

connections to and between specific subscribers are established. In circuit transmission systems, a multiplexing hierarchy comprised of a set of fixed bit rate signals is utilized. One such hierarchy includes the DS-1(1.544 Mbits/sec), DS-1C (3.152 Mbits/sec), DS-2 (6.312 Mbits/sec), DS3 (44.736 Mbits/sec) and DS-4 (274.176 Mbits/sec) signals. A plurality of signals at one level in the hierarchy may be multiplexed together to form a higher bit rate signal in the hierarchy.

Conventional circuit systems suffer from a number of shortcomings. One important problem is the multiplexing hierarchy itself. An important result of the hierarchy is an inherent lack of flexibility. Since the network can only transmit the set of signals in the hierarchy, every telecommunication service has to meet the stringent requirement of given hierarchical signal bit rates, instead of being able to transmit at its own natural bit rate.

In contrast with the circuit mode of transmission, the packet mode of transmission is inherently bit rate flexible. Accordingly, packet transmission is favored for future broadband networks which are to be used to deliver enhanced telecommunications services such as HDTV. In the packet transmission mode, data is transmitted in discrete blocks or packets, with each packet having an address header at the front thereof. At the network switches, packets are routed from a specific input line to a specific output line based on address information contained in the packet header. In this way,data

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packets can be routed from a specific subscriber location, through a telecommunications network, to another subscriber location.

In accordance with the present invention, a method and apparatus for transporting both circuit and packet traffic in a telecommunications network is provided. To transport circuit and packet traffic in accordance with the present invention, a transmission bit stream is generated. The transmission bit stream is divided into frames. Each frame comprises two fields, a transmission overhead field and payload field. The transmission overhead field includes, for example, frame timing information and information as to the empty/full status of the payload field. Initially, the payload fields in the frames are empty.

The empty payload field of each frame may be filled with a data packet including a header. Illustratively, the data packets may be formed from data generated by customer premises equipment, or the data packets may be formed from slots from a circuit transmission stream. Before such a slot can be inserted into an empty payload field of a frame in the transmission bit stream, it is first converted into packet format by attaching a header at the front thereof. In certain cases, it may be possible for a payload field of a frame to contain more than one packet. The data packets from a variety of sources are transmitted to remote locations via the transmission bit stream.

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An appropriate analogy is as follows. The stream of empty frames may be analogized to a train of empty freight cars. The empty freight cars are filled with data in packetized format from various sources which have access to the train of freight cars. The train, with its now filled freight cars, transmits the data to remote locations.

The following example illustrates how packet traffic and circuit traffic may be transmitted in an integrated fashion using the present invention. Consider three data sources, a digital phone generating 64 Kilobits/sec PCM voice, a graphics terminal sending bursty data at 1 Megabit/sec, and a circuit transmission stream operating at the DS-3 rate of about 45 Megabits/sec.

A transmission bit stream is generated comprising frames with empty payload fields. Illustratively, 144,000 frames are generated per second with each frame comprising 130 bytes for a total bit rate of 150 Megabits/sec. The frames in the transmission stream are shared by the three sources. The circuit source takes one out of every three frames passing by. Thus, the regularity of the circuit transmission will be maintained. Illustratively, the voice source is packetized by accumulating up to 15ms worth of voice samples before inserting this information into an empty payload field along with a header. Accordingly, the voice source will, on average, seize one out of every 2,160 frames. Similarly, the graphics source will fill one frame out of 150. In this manner data from three diverse sources including circuit sources and customer premises equipment are combined into

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a single bit stream for transmission to one or more remote location.

In a particular embodiment of the invention, each source is interfaced with the transmission bit stream by means of an interface unit. Each interface unit includes a packetizer for converting data into data packets, a memory for storing packets formed by the packetizer, and means for inserting a packet stored in the memory into an empty payload field of one of the frames. Illustratively, the interface units are connected in series. In this case, the frames are passed sequentially from one interface unit to the next to pick up packets for the payload fields.

Similarly, a transmission bit stream of the type described above may be disassembled in accordance with the present invention to transmit data to various customer premises equipment. Illustratively, an apparatus for disassembling such a bit stream includes a plurality of interface units. Each of the interface units serves to interface an associated unit of customer premises equipment with the bit stream. Each interface unit comprises a circuit for receiving each frame in the bit stream and for determining if the frame includes a data packet to be routed to the associated customer premises equipment. If a frame includes a data packet to be routed to the associated customer premises equipment, the relevant interface unit stores the packet in a memory for subsequent transmission to the equipment.

In short, the present invention provides a network transport scheme for transmitting data from diverse sources including customer premises equipment or circuit transmission streams. To transmit the data, a bit stream comprising a sequence of frames with empty payload fields is generated. The data from the sources is packetized and the resulting packets are inserted into the payload fields for transmission to remote locations.

Like the claimed invention, the Baran et al. reference relied on by the Examiner discloses a network transport system for handling both circuit and packet traffic. However, the mechanism used to transport packet and circuit traffic in the Baran et al. reference is totally different from the transport mechanism of the claimed invention.

The system of Baran et al. may be understood with reference to FIGs 2, 3A, 3B and 8. FIG 2 illustrates a switch which interconnects a plurality of trunk lines. The protection interface card 92 of FIG 2 converts data between a transmission voltage level and a processing voltage level at which data is processed in the switch of FIG 2. The switch of FIG 2 includes a bus 90 which operates under control of the packet control card 100. Connected to the bus 90 are a plurality of transceiver units 94, 96 and a voice/data processor 103. The transceiver 94 transmits data arriving via the trunks to the bus 90. The transceiver 96 receives data from the bus 90 and transmit this data outward on the trunks. The bus 90, which operates in a

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packet mode or in a circuit mode, transmits data among the various processing units attached thereto.

The switch of FIG 2 may act as a circuit switch. Thus, for example, data may arrive at the switch of FIG 2 in a circuit transmission format such as the DS-1 frame of FIG 3B which comprises 24 slots. Such a frame is routed by the bus 90, for example, from the transceiver 94 to the transceiver 96 so that the frame is routed outward from the switch via a particular trunk line. Similarly, the switch of FIG 2 may act as a packetizer. Thus, data in unpacketized form may arrive at the transceiver 94 from customer premises equipment. This data is routed by the bus 90 to the processor 103 where it is packetized to form a packet (see FIG 3A) whose length is the same as a DS-1 frame (see FIG 3B). This packet is then routed to a transceiver such as the transceiver 96 where it is supplied with appropriate circuit frame signal bits so that it can be transmitted via one of the trunks in a DS-1 frame. The bus 90, when operating in the packet mode, also serves to transmit packets arriving at transceiver 94 to the transceiver 96 for subsequent transmission via a particular trunk. In this manner the switch of FIG 2 of Baran et al. is able to integrate circuit and packet traffic in a single transmission system.

A channel trunk transceiver for use in connection with the switch of FIG 2 of the Baran et al. reference is shown in more detail in FIG 8. The receivers 94, 96 of FIG 2 may be formed from a plurality of units of the type shown in FIG 8. One of the

trunk lines entering/leaving the transceiver of FIG 8 uses the standard DS-1 format and the other trunk transmits packets which are co-extensive with DS-1 frames. The transceiver of FIG 8 comprises the TTL receivers 182 which drive a frame and signaling extractor 184. The device 184 illustratively removes DS-1 framing information and provides control information to the receiver control unit 186. Arriving data in packet format is routed by the control unit 186 to the FIFO 188 and arriving data in circuit format is routed to the RAM 190. The FIFO 188 and RAM 190 are used for temporary storage of packets and circuit data to be transmitted via the bus 90.

Circuit data transmitted by the bus 90 is received by the transceiver of FIG 8 at the RAM 192 when the bus 90 is in a circuit transmission mode. Similarly, packet data transmitted by the bus 90 is received at the transceiver of FIG 8 at the FIFO 194 when the bus 90 is in a packet transmission mode. The RAM 192 and FIFO 194 are coupled to a transmit control unit 198 through which either circuit signals in frame/slot format or packets are transmitted to the frame and signaling inserter 200. The frame and signalling inserter 200 inserts the DS-1 framing signals into the circuit frames or into the packets in accordance with conventional trunk technology. The data in circuit or packet form are then transmitted via the transmitters 202.

Thus, the Baran et al. reference integrates packet and circuit data in a manner totally different from that of the claimed invention. In particular, the transmission format is

entirely different. In the claimed invention, all of the data to be transmitted is transmitted in the form of packets which are contained in the payload fields of frames. In contrast, in the Baran et al. reference, some data is transmitted in the form of frames divided into slots and some of the data is transmitted in the form of packets whose length is the same as the length of the frames. In addition, the transmission bit streams are formed entirely differently in the claimed invention and in Baran et al. Thus, as indicated above, the transmission stream of the claimed invention is formed by first generating a bit stream comprised of frames with empty payload fields. Data from a plurality of sources which have access to the transmission stream are packetized. The packets are then inserted into the empty payload fields of the frames. The Baran et al. reference in no way discloses the formation of a transmission bit stream by generating a sequence of frames with empty payload fields and picking up packets from a plurality of sources to fill the payload fields. Instead, Baran merely discloses a switch which internally routes and transmits data in circuit or packet format.

Accordingly, it is respectfully submitted that the claims as amended are not anticipated or rendered obvious by Baran et al.

Applicant's claims are now considered in more detail. Independent claims 1 and 3 are method claims which include the steps of generating a bit stream comprising a sequence of frames with empty payload fields, and inserting packets from a plurality of sources into the empty payload fields. As indicated above, no

such method is disclosed or suggested in Baran et al. Accordingly, it is respectfully submitted that claims 1 and 3 are patentable over Baran et al. Claim 2 is dependent on claim 1 and is patentable over Baran et al. for the reasons stated above.

Claims 4 and 5 are apparatus claims directed to an apparatus for forming a transmission bit stream. The apparatus comprises means for generating a bit stream comprising a sequence of frames with empty payload fields, means for packetizing data from a plurality of sources, and means for inserting the packets into the empty payloads fields of the transmission bit stream. Claim 5 is directed to an embodiment wherein each of the sources accesses the bit stream by means of an interface unit including packetizing, memory and inserting circuitry. No such apparatus is suggested or disclosed in Baran et al. Accordingly, it is respectfully submitted that claims 4 and 5 are patentable over Baran et al. Claim 14 is dependent on claim 4 and claim 6 is dependent on claim 5. Claims 4 and 6 are patentable over Baran et al. for the reasons stated above.

Claim 8 is directed to an apparatus for disassembling a bit stream which comprises packets contained in the payload fields of frames. The apparatus includes a plurality of interface units. Each interface unit serves to interface a unit of customer premises equipment with the bit stream. The interface units read the frames as the bit stream passes by and if an interface unit detects a packet destined for the associated customer premises equipment, the packet is stored for subsequent forwarding to the

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customer premises equipment. No such apparatus is disclosed or suggested in Baran et al. Accordingly, it is respectfully submitted that claim 8 is patentable over Baran et al. Claims 9 and 10 are dependent on claim 8 and are patentable over Baran et al. for the reasons stated above.

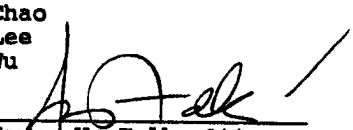
In short, applicants submit that claims 1-6, 8-10 and 14 are not anticipated or rendered obvious by the Baran et al. reference.

The Examiner has cited but has not relied upon Servel et al, U.S. Patent 4,594,708, Graves et al., U.S. Patent 4,764,921 and Kume et al, U.S. Patent 4,516,240. Applicants have considered these references and respectfully submit that they do not anticipate or render obvious the claimed invention.

Finally, allowance of claims 1-6, 8-10 and 14 is requested. If the Examiner believes that further discussion of the matters raised herein is warranted, the Examiner is urged to telephone the undersigned.

Respectfully submitted,

H.J. Chao
S.H. Lee
L.T. Wu

By 

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Bell Communications Research, Inc.

Date: FEB 15 1989

Attached
Transmittal Letter
Acknowledgement postcard
Proposed Drawing Correction

15

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Wang-Hsiang Jonathan Chao
Sang Hoon Lee
Liang Tai Wu
CASE 1-3-2
SERIAL NO. 07/118,977 **FILED** November 10, 1987
GROUP ART UNIT 263
EXAMINER W. Chin
TITLE Dynamic Time Division Multiplexing

THE COMMISSIONER OF PATENTS AND TRADEMARKS
WASHINGTON, D.C. 20231

SIR:

Enclosed is an amendment in the above-identified application.

[X] **No additional fee is required, as shown below.**
[ ] **A check in the amount of $_____ is attached to cover the fee, which has been calculated as shown below.**

CLAIMS AS AMENDED						
(1)	(2) CLAIMS REMAINING AFTER AMENDMENT	(3)	(4) HIGHEST NUMBER PREVIOUSLY PAID FOR	(5) PRESENT EXTRA	(6) RATE	(7) ADDITIONAL FEE
TOTAL CLAIMS FOR FEE PURPOSES	10	MINUS	20	0	x $12	0
INDEPENDENT CLAIMS	5	MINUS	7	0	x $34	0
MULTIPLE CLAIM(S) FIRST PRESENTED WITH THIS AMENDMENT	NO [X]	YES [ ]			IF YES, +$110	0
TOTAL ADDITIONAL FEE FOR THIS AMENDMENT →						$ 0

In the event of any non-payment or improper payment of a required fee, the Commissioner is authorized to charge deposit account 02-1820 as required to correct the error.

J. W. Falk/la
Attorney for Applicant(s)

Date: FEB 15 1989

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FT. 15 8/87 (rdp)

I hereby certify that this correspondence is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231.
on FEB 15 1989
Date FEB 15 1989
Joann DeKaroFski
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EXHIBIT F

NEWTON'S TELECOM DICTIONARY

The Official Dictionary of Telecommunications & the Internet

• IP Telephony • LANs & Intranets • Call Centers & Computer Telephony • Fiber Optics, SONET and DWDM • Satellites • Voice, Data, Image & Video Networking • Wired and Wireless Telecom • VoIP • T-1, T-3, T-4, E-1, E-3 • ISDN & ADSL • Cable Modems • Cellular, PCS & GSM • Windows 95, 98, NT, NetWare, Apple, Sun & Unix Networking • Ecommerce

by Harry Newton

NEWTON's TELECOM DICTIONARY

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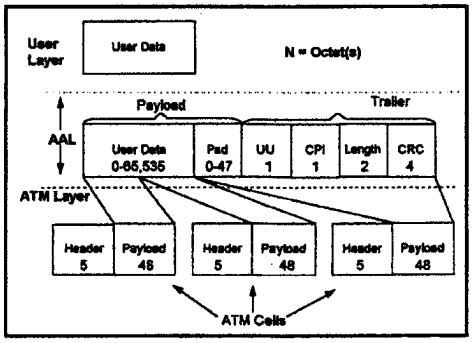
A/D Analog to Digital conversion.
A/D Converter Analog to Digital converter, or digitizer. It is a device which converts analog signals (such as sound or voice from microphone), to digital data so that the signal can be processed by digital circuit such as a digital signal processor. See CODEC.
A/UX An alternate operating system for the Macintosh based on UNIX. A/UX has its own, unique 32-bit addressing mode.
A20 Line A control line on the Intel 80386 microprocessor that allows MS-DOS and an extended memory manager to create the High Memory Area, or HMA. Only one program can claim control over the A20 at a time.
A4 The Basic Group 3 standard that defines the scanning and printing of a page 215 mm (8.5 in) wide. An A5 page is 151 mm (5.9 in) wide, and the A6 is 107mm (4.2 in) wide.
A5 See A4
A6 See A4
AA 1. Automated Attendant. A device which answers callers with a digital recording, and allows callers to route themselves to an extension.
2. Auto Answer. A modem indicator light that is meant to tell you the modem is ready to pick up the phone, so long as there's a communication program running and prepared to handle the call. See also Modem.
AABS Automated Attendant Billing System. A feature which allows collect and third-number billed toll calls to be placed on an automated basis. A synthesized voice prompt guides the caller through the process, the system then seeks approval of the prospective billed party, and either completes or denies the call based on that authorization or lack thereof. AABS is automated in much the same way as calling card services have been automated, through the use of an Intelligent Peripheral (IP) device.
AAL ATM Adaptation Layer of the ATM Protocol Reference Model, which is divided into the Convergence Sublayer (CS) and the Segmentation and Reassembly (SAR) sublayer. The AAL accomplishes conversion from the higher layer, native data format and service specifications of the user data into the ATM layer. On the originating side, the process includes segmentation of the original and larger set of data into the size and format of an ATM cell, which comprises 48 octets of data payload and 5 octets of overhead. On the termination side of the connect, the AAL accomplishes reassembly of the data. Taken together, these processes are known as Segmentation and Reassembly. AAL is defined in terms of Types supported by the Convergence Sublayer. Each type supports certain specific types of traffic, and each offers an appropriate Quality of Service (QoS), based on traditional network references. See the next five definitions for AAL specifics.

	Class A	Class B	Class C	Class D
Timing relation between source and destination	Required		Not Required	
Bit Rate	Constant	Variable		
Connection Mode	Connection-Oriented			Connectionless
Applications	Voice, Video, Circuit Emulation	Compressed Voice or Video	Frame Relay, X.25 Traffic	SMDS, LAN Traffic

AAL Service Classes, with specific attributes and example applications. Source: ITU-T Recommendation I.362 (March, 1993)

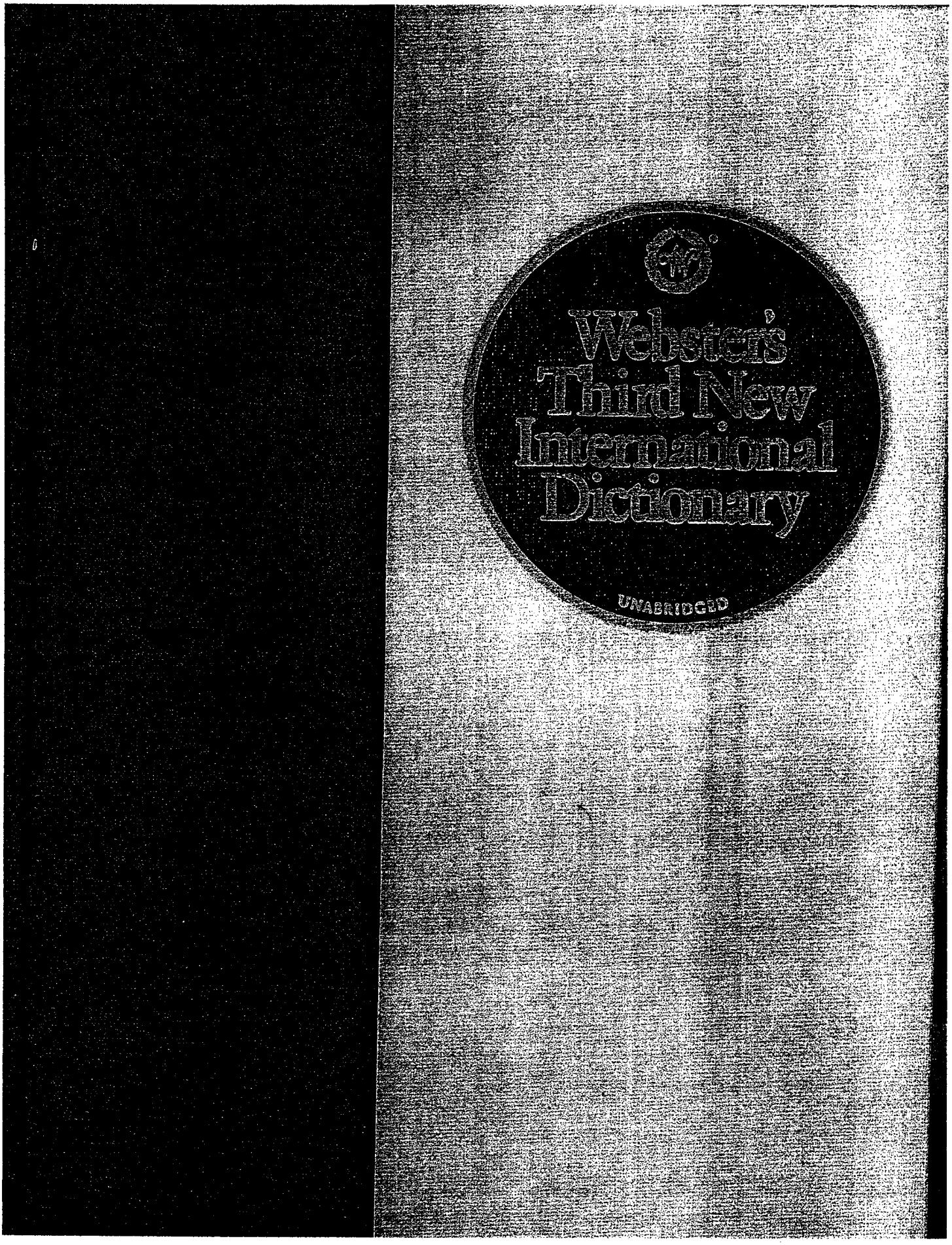
AAL-1 ATM Adaptation Layer Type 1: AAL functions in support of Class A traffic, which is connection-oriented, Constant Bit Rate (CBR), time-dependent traffic such as uncompressed, digitized voice and video. Such traffic is isochronous, i.e., stream-oriented and highly intolerant of delay.
AAL-2 ATM Adaptation Layer Type 2: This AAL supports Class B traffic, which is connection-oriented, Variable Bit Rate (VBR), isochronous traffic requiring precise timing between source and sink. Examples include compressed voice and video.
AAL-3/4 ATM Adaptation Layer Type 3/4: AAL support of Class C and D traffic, which is Variable Bit Rate (VBR), delay-tolerant data traffic requiring some sequencing and/or error detection support, but no precise timing between source and sink. Originally two AAL types, AAL types 3 and 4 were combined in support of both connection-oriented and connectionless traffic. Examples include X.25 packet and Frame Relay traffic.
AAL-5 AAL-5 ATM Adaptation Layer Type 5. AAL functions in support of Class C traffic, which is of Variable Bit Rate (VBR), and which is delay-tolerant connection-oriented data traffic requiring minimal sequencing or error detection support. Such traffic involves only a single datagram in Message Mode. Examples of AAL-5 data include signaling and control data, and network management data. AAL-5 also is known as SEAL (Simple and Efficient AAL Layer). AAL-5 traffic originates in the form of a native data payload unit which is known as an IDU (Interface Data Unit). The IDU is of variable length, up to 65,536 octets. At the Convergence Layer the IDU is appended with a trailer including the UU, CPI, Length and CRC fields. The UU (User-to-User) field of one octet contains data to be transferred transparently between users. The CPI (Common Part Indicator) field of one octet aligns the trailer in the total bit stream. The Length field of two octets indicates the length of the total IDU payload. The CRC (Cyclic Redundancy Check) of four octets is used for purposes of error detection and correction in the trailer, only. When the payload user data plus the trailer data hit the ATM Adaptation



AAL Type 5 operation. User data is appended with trailer at ATM Adaptation Layer and segmented into 48-octet cells at ATM Layer.

Layer, the entire set of data is segmented into 48-octet payloads, with each being prepended with a 5-octet header to form a 53-octet ATM cell. See ATM.
AAL Connection An ATM term. Association established by the AAL between two or more next higher layer entities.
AALn See AAL-1, AAL-2, AAL-3/4, AAL-5.
AAR Automatic Alternate Routing.
AARP Probe Packets Packets transmitted by AARP that

EXHIBIT G


Webster's
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Dictionary
UNABRIDGED

A GENUINE MERRIAM-WEBSTER

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MADE IN THE UNITED STATES OF AMERICA

495051 QP/H009998

assets en-tre main \ən-trə'mān\ [AF *asetz entre mains*] : ASSETS IN HAND

assets in hand [trans. of AF *asetz entre mains*] : assets going directly to the executor or other trustee to satisfy the claims against him as such — used in the older law of the administration of estates; called also *assets entre main*

as-sev-er \ə'sevə(r), a'-\ *vt* **assevered; assevered; assevering** \-v(ə)riŋ\ **assevers** [L *asseverare*] *archaic* : ASSEVERATE

as-sev-er-ate \ə'sevə,rāt, a'-, usu -ləd-+V\ *vt* -ED/-ING/-S [L *asseveratus, asseveratus*, past part. of *asseverare, adseverare*, *fr. adv.* + *severare* (*fr. severus* serious, severe) — more at SEVERE] : to affirm or aver positively or earnestly (admit or ~ the necessity and inevitability of almost everything that follows —C.Pepper) **syn** see SWEAR

as-sev-er-a-tion \ə,sevə'rāshən\ *n* -S [L *asseveration-, asseveratio*, *fr. asseveratus* + *-ion-, -io* -ion] : the act of asseverating : positive or emphatic affirmation or assertion : solemn declaration (a simple factual account of the author's ~s —Muna Lee).

as-sev-er-a-tive \ə'sevə,rād-iv, a'-, -rəd-iv\ *adj* : characterized by asseveration : ASSEVERATING

asshead \'a-,a\ *n* [*ass* + *head*] : BLOCKHEAD, ASS

as-si \'asē\ *n* -s [Creek *ássi*, short for *ásse-lupúski* small leaves] : YAUPON

as-sib-i-late \ə'sibə,lāt, a'-, usu -ləd-+V\ *vb* -ED/-ING/-S [*ad-* + *sibilate*] *vt* 1 : to introduce a sibilant sound after or less often before (z was an *assibilated d* in primitive Greek — either \dz\ or \zd\) 2 : to convert to or replace by a sibilant sound or a sound of which a sibilant is one constituent (as when the pronunciation \'indyən\ for *Indian* becomes \'inj(ə)n\; \j\ = \d\ + \y\) ~ *vi* : to change by introducing a sibilant sound (noninitial] Indo-European *ñ* (unless preceded by *s*) ~*ed* (through palatalization) to *si* —G.U.Bonfante)

as-sib-i-la-tion \ə,sibə'lāshən\ *n* -S : the development of a sound into a sibilant or into an affricate whose second element is a sibilant

as-si-de-an *or* **as-si-dae-an** \,asə'dēən\ *or* **has-i-de-an** *or* **has-i-dae-an** *also* **has-si-de-an** *or* **has-si-dae-an** \,has-\ *n* -S *usu cap* [Gk *Asidaîoi*, pl. (fr. Heb *ḥăsīdhīm* pious ones) + -*an* — more at HARD] : HASID

as-si-du-i-ty \,asə'd(y)üəd-ē, ,as-, -ōd-, -i\ *n* -ES [L *assiduitas*, fr. *assiduus* assiduous + *-itas* -ity] 1 : the quality or state of being assiduous : constant or close application or attention esp. to some business or enterprise : DILIGENCE 2 *obs* : frequent repetition 3 : solicitous or obsequious attention to a person : persistent personal attention — often used in pl. (vanquish her coldness . . . by my *assiduities* —Tobias Smollett)

as-sid-u-ous \ə'sijəwəs, ə'-\ *adj* [L *assiduus*, fr. *assidēre* to sit beside, take care of — more at ASSIZE] 1 : marked or characterized by constant unremitting attention or by persistent energetic application (an ~ servant) (~ labor) 2 : SOLICITOUS, OBSEQUIOUS **syn** see BUSY

as-sid-u-ous-ly *adv* : in an assiduous manner : with assiduity (tried ~ to make the sale)

as-sid-u-ous-ness *n* -ES : ASSIDUITY

assiege *vt* -ED/-ING/-S [ME *asegen, assegen*, fr. MF *assegier*, fr. OF, prob. fr. *a-* (fr. L *ad-*) + *sege* seat, siege — more at SIEGE] *obs* : BESIEGE — **assiegement** *n* -S *archaic*

assiento *var of* ASIENTO

as-si-ette \"ē\ *n* -S [F, fr. MF, seating of guests at table, course (of a meal), fr. OF, assessment (of a tax), fr. (assumed) VL *assedita* action of seating or placing, fr. fem. of *asseditus*, past part. of *assedēre* to seat, place — more at ASSIZE] 1 *a* : PLATE 3c *b* : hors d'oeuvres or cold cuts served on one plate 2 : a mixture of bole, bloodstone, and galena used as a gilding surface (as by bookbinders)

1as-sign \ə'sīn *also* a'-\ *vt* -ED/-ING/-S [ME *assignen*, fr. OF *assigner*, fr. L *assignare, adsignare*, fr. *ad-* + *signare* to mark, mark out, designate — more at SIGN] 1 : to transfer to another in writing (one's title to or interest in property, esp. intangible property) (~ a bond by an endorsement); *specif* : to transfer (property) to another in trust or for the benefit of creditors (the bankrupt must also ~ all of his patents to the receiver) 2 *a* : to appoint (one) to a post or duty (she was ~ed to the laboratory and school —*Current Biog.*) (though ~ed only menial tasks —B.L.Robinson); *specif* : to order (an individual or unit) to serve more or less permanently as an organic member of a particular military organization — distinguished from *attach* *b* : PRESCRIBE (carbines are ~ed for guard duty) (the teacher ~ed the next 20 pages of the text) 3 : SPECIFY, SELECT, DESIGNATE : fix authoritatively or exactly (~ a limit) (~ counsel) (~ a day for trial) 4 *a* : to give, address, or allege by way of explanation or cause esp. after deliberation (financial difficulties were ~ed as the probable cause of his suicide —G.S.Bryan) *b* : to think of after deliberation as characterizing or being possessed as indicated ‡ ALLOT, ENDOW (by ~*ing* to a nation energy and honesty as its chief spiritual characteristics —Matthew Arnold) *c* : to regard as done by or during : reckon as composed, made, or executed as indicated (the temple of Baal Lebanon, which is ~ed to the eleventh century B.C. —Edward Clodd) 5 *archaic* : to point out : SHOW (the dwarf the way to her ~ed —Edmund Spenser) **syn** see ALLOT, ASCRIBE, PRESCRIBE

2assign \"\ *n* -S [ME *assigne*, fr. MF *assigné* — more at ASSIGNEE] 1 : ASSIGNEE *b* 2 *obs* : ASSIGNEE *a*

as-sign-a-bil-i-ty \ə,sīnə'bilәd-ē, -ōt-, -i\ *n* -ES : the quality of being assignable

as-sign-a-ble \ə'sīnəbəl\ *adj* : capable of being assigned (definite, ~ reasons —William James) (the bill of exchange is par excellence an ~ debt —W.M.Dacey) — **as-sign-a-bly** \-əblē, -li\ *adv*

as-sig-nat \'asig,nat, F āsēn'ā\ *n* -S [F, fr. L *assignatus*, past part. of *assignare* to assign] : one of the bills issued as currency by the Revolutionary government of France (1790-95) and based on the security of the lands that had been appropriated by the state

as-sig-na-tion \,asig'nāshən, ,asēg-\ *n* -S [ME *assignacion*, fr. MF, fr. L *assignation-, assignatio*, [fr. *assignatus* + *-ion-, -io* -ion] 1 *obs* : authoritative order 2 *obs* : assignment of funds ‡ ALLOTMENT *b* : something assigned (as a sum of money) *c obs* : a piece of paper currency 3 *a* : a making over by transfer of title ‡ ASSIGNMENT *b* : an assigning by allotment ‡ APPORTIONMENT 4 : an appointment of time and place for a meeting esp. for illicit sexual relations (known places of ~ —E.A.Armstrong) (returned from an ~ with his mistress —W.B.Yeats) 5 : ATTRIBUTION, ASCRIPTION (the ~ to Mark Twain of "everybody talks about the weather, but nobody does anything about it" —*Saturday Rev.*) **syn** see ENGAGEMENT

assigned risk *n* : a risk that qualified underwriters of workmen's compensation or automobile liability insurance would reject under applicable standards but accept so as to permit compliance with state law, the insurance being handled through a pool of insurers and assigned to companies in turn

as-signee \ə,sī'nē, ,a,sī'nē; ə'sī(,)nē, a'sī(,)nē, -,sī; *Brit usu* ,asə'nē\ *n* -S [ME *assignee*, fr. MF *assigné*, past part. of *assigner* to assign — more at ASSIGN] 1 : one to whom an assignment is made: as *a* : one appointed to act for another: AGENT, REPRESENTATIVE *b* : one to whom a right or property is legally transferred — **as-sign-ee-ship** \-,ship\ *n* -S

as-sign-er \ə'sīnə(r) *also* a'-\ *n* -S : one that assigns or makes an assignment

as-sign-ment \-əmənt\ *n* -S [ME *assignement*, fr. MF, fr. OF, fr. *assigner* to assign + *-ment*] 1 : the act of assigning: as *a* ‡ ALLOTMENT (the ~ of land to veterans) *b* : a pointing out or specifying (~ of error in proceedings for review) *c* ‡ ALLEGEMENT, STATEMENT (the ~ of these reasons) *d* : ATTRIBUTION (his ~ of different functions to different parts) 2 *a* : a position, post, or office to which one is assigned ‡ APPOINTMENT (his ~ as vice-consul in Liverpool) (his ~ as minister of two rural churches) *b* : a specified amount of work or a definite task or mission assigned by authority or undertaken as though so assigned (an ~ of 10 arithmetic problems) (the reporter's ~ was to interview the congressman) 3 *a* : the transfer to another of one's legal interest or right; *esp* : the transfer of property to be held in trust or to be used for the benefit of creditors *b* : the document by which such an interest or right is transferred **syn** see TASK

as-sign-or \ə'sīnər, ə'-, -,nȯ(ə)r; ə,sī'nȯ(ə)r, ,a,sī'nȯ(ə)r; *Brit usu* ,asə'nȯ(ə)r\ *n* -S : one that makes an assignment; *esp* : one that transfers to another a legal interest or right

assign *abbr* assignment

as-sim-i-la-bil-i-ty \ə,simələ'bilәd-ē, -ōt-, -i\ *n* -ES : the quality or state of being assimilable (the ~ of new immigrants)

as-sim-i-la-ble \ə'simələbəl\ *adj* : capable of being assimilated

1as-sim-i-late \ə'simə,lāt, *usu* -ləd-+V\ *vb* -ED/-ING/-S [ML *assimilatus*, past part. of *assimilare*, fr. L *assimulare, assimilare, adsimulare, adsimilare* to make similar, compare, fr. *ad-* + *simulare, similare* to make similar, simulate — more at SIMULATE] *vt* 1 *a* : to appropriate and transform or incorporate into the substance of the assimilator : take in and appropriate as nourishment : absorb into the system (the body ~s digested food into its protoplasm) *b* : to take in and absorb as one's own: receive into the mind and consider and thoroughly comprehend (the wide range of influences . . . which he *assimilated* in his years of apprenticeship —Herbert Read) (an amazing amount of scientific information which he had *assimilated* —V.G.Heiser) 2 *a* : to make similar or alike : cause to resemble — usu. used with *to* or *with* (~ our law in this respect to the law of Scotland —John Bright) (stains, and vegetation, which ~ the whole surface with the work of nature —John Ruskin) *b* : to alter by the process of assimilation (the prefix *im-* is an *assimilated* form of *in-*) *c* : to absorb into the cultural tradition of a population or group (the community *assimilated* persons of many nationalities) 3 : to represent as similar or alike ‡ COMPARE, LIKEN (*assimilated* the career of a conqueror to that of a simple robber —W.E.H.Lecky) — usu. used with following *to* or *with* 4 *archaic* : to bring into conformity ‡ ADAPT ~ *vi* 1 *a* : to become of the same substance : become absorbed or incorporated into the system (some foods ~ more readily than others) *b* : to become absorbed (cannot ~ with the Church of England —J.H. Newman) 2 *a* : to be or become similar or alike ‡ RESEMBLE — usu. used with following *to* or *with* (~s with the character of English scenery) *b* : to become altered by the process of assimilation (the sound *m* often ~s before a following *n*) *c* : to become culturally assimilated : undergo cultural assimilation 3 *archaic* : to become adapted ‡ CONFORM

2as-sim-i-late \-,lāt, -,lət, *usu* -d-+V\ *n* -S : something that is assimilated

as-sim-i-la-tion \ə,simə'lāshən\ *n* -S [prob. fr. ML *assimilation-, assimilatio* physiological assimilation, fr. L *assimulatio, assimilatio* similarity, fr. *assimulatus, assimilatus* (past part. of *assimulare, assimilare* to make similar) + *-ion-, -io* -ion] 1 *a* : the act or process of assimilating (this creative ~ of what is handed down constitutes the great conservative force in poetry —J.L.Lowes) *b* : the quality or state of being assimilated (some writings had to be translated many times before reaching their final ~ —G.A.L.Sarton) 2 *a* : the conversion or incorporation of nutritive material into the fluid or solid substance of the body and being the last stage or series of stages in the process of nutrition following after digestion and absorption or occurring with the latter *b* : the incorporation of foreign blastematous material into the organized pattern of an embryo or blastema (as in certain experimental transfers of tissue) *c* (1) : the incorporation of food materials into the protoplasm ? photosynthesis esp. in England 3 : the process in chemical composition of molten magmas is changed by the fusion of the country rock with which they come in contact 4 : partial or total adaptation of the position or type of articulation of a particular sound (as a consonant) to that of an adjacent or neighboring sound — compare UMLAUT (in the word *capboard* the \p\ sound of the word *cup* has undergone complete ~) (in *conduct* the \m\ of the prefix *com-* shows ~) 5 : the process of receiving new facts or responding to new situations in conformity with what is already available to consciousness : compare APPERCEPTION 6 : sociocultural fusion wherein individuals and groups of differing ethnic heritage acquire the basic habits, attitudes, and mode of life of an embracing national culture — distinguished from *acculturation*

as-sim-i-la-tion-ist \-ənist\ *n* -S : one that believes in or advocates a policy of assimilation of differing racial or cultural groups, sometimes specif. of the Jews

as-sim-i-la-tive \-ād-iv, -ləd-\ *adj* [ML *assimilativus*, lit., making similar, fr. L *assimulatus, assimilatus* + *-ivus* -ive] : tending to, characterized by, or causing assimilation ‡ ASSIMILATING (an ~ pattern) (an ~ process)

as-sim-i-la-tor \-,lād-ə(r)\ *n* -S : one that assimilates

as-sim-i-la-to-ry \-,lə,tōrē, -,ōr-\ *adj* ‡ ASSIMILATIVE

as-sim-i-nea \ə,simə'nēə\ *n, cap* [NL] : a genus (the type of the widely distributed family Assimineidae) of small conical operculate gill-bearing snails (order Pectinibranchia) of brackish water including a species (*A. lutea*) sometimes serving as an intermediate host of the lung fluke

as-sin-i-boin *also* **as-sin-i-boine** \ə'sinə,boin\ *n, pl* **assiniboin or assiniboins** *also* **assiniboine or assiniboines** *usu cap* [Ojibwa *Ásini-ᾱpwᾱ-wᾱ*, lit., one who cooks by use of stones, fr. *ásini* stone + *ᾱpwᾱ-wᾱ* he cooks by roasting] 1 *a* : a Siouan people of the area between the upper Missouri and middle Saskatchewan rivers *b* : a member of such people 2 : a dialect of Dakota spoken by the Assiniboin people

1as-sis \ə'sēs\ *adj* [F, past part. of *asseoir* to seat — more at ASSIZE] : sitting down — used of animals in heraldry

2assis *pl of* ASSI

as-sise \ə'sēz\ *n* -S [F, fr. *assise*, fem. of *assis*] : a succession of two or more paleontologic zones bearing typical fossils of the same species or genera

as-si-si \ə'sē(,)sē, ə'sēzē *also* ə'sisē *or* ə'sizē\ *n* -S [fr. *Assisi*, commune, Perugia province, Italy, where it was originally made] : an imitation pottery with unworked designs outlined by a solid background of cross-stitch

1as-sist \ə'sist\ *vb* -ED/-ING/-S [ME *or* L; ME *assister* to help, be present, fr. L *assistere, adsistere* to help, stand by, fr. *ad-* + *sistere* to cause to stand, stand; akin to L *stare* to stand — more at STAND] *vi* 1 : to give support or aid ‡ HELP (refused to ~ in the campaign) (waited to see if he could ~ in any way) 2 : to be present as a spectator (unwilling to ~ at an interview between Amy and Amy's mistress —Arnold Bennett) 3 *a in euchre* : to order the dealer who is the partner to take up the turned trump *b in bridge* : RAISE ~ *vt* 1 *a* : to give support or aid to esp. in some undertaking or effort ‡ AID (diligently endeavored to ~ his search for a mate —George Meredith) (~ed the boy with his lessons) *b* : to perform some service for ‡ HELP (a good and faithful helpmate ~ed me much by attending the shop —Benjamin Franklin) (~ed the old man up the stairs) 2 *obs* : to take one's place with : JOIN, ATTEND **syn** see HELP

2assist \" *sometimes* 'a,s- *in sense 2*\ *n* -S 1 : an act of assistance ‡ AID (without any ~ from her brother . . . she has written . . . a breezy novel —Bernard Kalb) 2 *a* : the act of a player who by handling the ball (as in baseball) or passing the puck (as in hockey) enables a teammate to make a put-out or score a goal *b* : the official credit given a player for making such a play 3 : an act or circumstance that helps to bring about a decisive result (the winning candidate got an ~ from his opponent's inept tactics)

as-sist-ance \ə'sistən(t)s\ *n* -S [ME *assistance* (fr. ML *assistentia*, fr. L *assistent-, assistens* + *-ia* -y) & *assistance*, fr. MF, fr. *assister* + *-ance*] 1 *a* : the act or action of assisting ‡ AID, HELP (might from time to time require the ~ of a mild digestive —Dorothy Sayers) *b* : the help supplied or given ‡ SUPPORT (economic ~ to several countries); *specif* : aid (often financial) to the needy (a program of public ~) 2 *archaic* : PRESENCE, ATTENDANCE *b* : AUDIENCE

as-sist-ant \ə'sistənt\ *adj* [ME *assistant* (fr. MF, pres. part. of *assister*) & *assistent*, fr. L *assistent-, assistens*, pres. part. of *assistere*] 1 : giving aid or support ‡ HELPFUL, AUXILIARY (the guilty trade and the innocent manufacture were mutually ~ in more ways than one —G.M.Trevelyan) 2 : acting as a subordinate to another ? having a subordinate position or rank (an ~ editor) (an ~ minister)

2assistant \"\ *n* -S [alter. (influenced by MF *assistant*) of ME *assistent*, fr. L *assistent-, assistens*] 1 *archaic* : one who is present ‡ SPECTATOR 2 *a* : one who assists ‡ HELPER (my close associate and invaluable ~ throughout the struggle) *b* : one who acts as a subordinate to another or as an official in a subordinate capacity (accepted a post as resident ~ in a large hospital) (was elected ~ and was for three years the only other officer —R.G.Usher) *c* : a member usu. of the lowest rank of a college or university faculty whose duties may include grading papers, supervising laboratories, or teaching classes (was appointed ~ in English) 3 : a means of help ‡ AUXILIARY (rhyme is an ~ to memory) 4 : a substance that aids in the processing of textile fibers; *esp* : a substance (as sodium sulfate) added to a dyebath for helping fix the dye or mordant to the yarn or fabric, for promoting level dyeing, or for promoting exhaustion of the dyebath

assistant professor *n* : a member of a college or university faculty of rank immediately above an instructor and immediately below an associate professor

as-sist-ant-ship \-,ship\ *n* : the position of assistant at a college or university often given to a graduate student working for an advanced degree (an ~ in chemistry)

as-sist-er \ə'sistə(r)\ *n* -S 1 *archaic* : one that is present 2 : one that assists

as-sist-ive \-tiv\ *adj* : giving aid ‡ HELPFUL

1as-size \ə'sīz *also* a'-\ *n* -S [ME *assise*, fr. OF, session, settlement, assessment, fr. fem. of *assis*, past part. of *asseoir* to seat, place, fr. (assumed) VL *assedēre*, alter. (influenced by L *sedēre*) of L *assidēre, adsidēre* to sit beside, assist in the office of judge, *fr. ad-* + *sedēre* to sit — more at SIT] 1 : an instruction, decree, or enactment made or issued at a legislative sitting or assembly ‡ EDICT, ORDINANCE (the *Assize* of Clarendon) (the *Assize* of Arms) 2 *a* : a statute or ordinance regulating weights and measures or the weight, measure, proportions of ingredients, or price of articles sold in the market (the *Assize* of Weights and Measures) *b* : the regulation of the price of bread or ale by the price of grain 3 : a fixed or customary standard (as of quantity, quality, or price) 4 *a* : a trial or hearing in the nature of an inquest or recognition before sworn jurymen or assessors ? judicial inquest *b* : an action to be decided by such a hearing, the writ for instituting it, or the verdict or finding rendered by the jury 5 *a* : the periodical sessions of the judges of the superior courts in every county of England for the purpose of administering justice in the trial and determination of civil and criminal cases — usu. used in pl. *b* : the time or place of holding such a court, the court itself, or a session of it — usu. used in pl. *c Scot* (1) : a jury trial (2) : JURY, PANEL 6 : a cylinder-shaped block of stone forming part of a column or of a layer of stone in a building

2assize *vt* -ED/-ING/-S [ME *assisen*, fr. *assise*, n.] *obs* : to regulate or fix (as a price) according to an ordinance or standard

as-siz-er \-zə(r)\ *n* -S [ME *assisour*, fr. AF, fr. OF *assise* + *-our* -or] 1 : a member of an assize ‡ JURYMAN 2 : an officer appointed to execute the provisions of various assizes (sense 2a)

assmt *abbr* assessment

assn *abbr* association

as-so-cia-bil-i-ty \ə,sōshē(ē)ə'bilәd-ē, -ōsh-, -ləd-, -i *also* a,s-\ *n* -ES : the quality or state of being associable

as-so-cia-ble \ə'sō(,)sēəbəl\ *adj* [ISV 1*associate* + *-able*] : capable of being associated, joined, or connected in thought (a word . . . easily ~ with collective nouns —Yakov Malkiel)

1as-so-ci-ate \ə'sōs(h)ē,āt, *usu* -ləd-+V\ *vb* -ED/-ING/-S [ME *associat* (3d pers. sing. past indic.), fr. L *associatus*, past part. of *associare*] *vt* 1 *a* : to join often in a loose relationship as a partner, fellow worker, colleague, friend, companion, or ally (was *associated* with him in a large law firm) (were closely *associated* with each other during the war) *b* : to elect as an associate (was *associated* to the Royal Academy —Robert Southey) 2 *obs* : to keep company with ‡ ATTEND (friends should ~ friends in grief and woe —Shak.) 3 : to join (things) together or connect (one thing) with another ‡ COMBINE (particles of gold *associated* with heavy minerals) 4 : to join or connect in any of various intangible or unspecified ways (as in general mental, legendary, or historical relationship, in unspecified causal relationship, or in unspecified professional or scholarly relationship) (surrealism has been *associated* with psychological and intellectual atmosphere common to periods of war —Bernard Smith) (she wished to ~ him with her unusual mood —J.C.Powys) 5 : to submit to public identification (as with a principle or sentiment) (the House will ~ itself with these expressions —Sir Winston Churchill) (I should wholeheartedly ~ myself with the general libertarian views —Felix Frankfurter) 6 *chem* : to join in loose combinations — see ASSOCIATION 7 ~ *vi* 1 : to come together as partners, fellow workers, colleagues, friends, companions, or allies (my father's conviction that they were too lowly to ~ with me —G.B.Shaw) 2 : to combine or join with another or others as component parts : UNITE (protons and neutrons with their encircling electrons ~ together to form atoms —G.W.Gray) 3 : to engage in free association (the patient *associated* freely about his childhood) — see FREE ASSOCIATION **syn** see JOIN

2as-so-ciate \-s(h)ēət, -shēt, -shē,āt, -sē,āt, *usu* -d-+V\ *adj* [ME *associat*, fr. L *associatus, adsociatus*, past part. of *associare, adsociare* to join, unite, fr. *ad-* + *sociare* to join, share, fr. *socius* companion — more at SOCIAL] 1 : closely connected, joined, or united with another (as in interest, function, activity, or office) ? sharing in responsibility or authority (descent through darkness . . . to my own powers —John Milton) (as judge) 2 : closely related esp. in the mind ‡ ALLIED, ACCOMPANYING (they want some ~ sounds to make them harmonious —Samuel Johnson) 3 ? admitted to some but not to all rights and privileges ? having a secondary or subordinate status (admitted to ~ membership in the society)

3associate \"\ *n* -S 1 : one associated with another: *a* : one who shares with another an enterprise, business, or action ? a fellow worker ‡ PARTNER (the chemist and his ~s finally completed their experiment) *b* : one who shares with another an office or position of authority ‡ COLLEAGUE (they were ~s on the bench for 20 years) *c* : one who is frequently in company with another ‡ COMPANION, COMRADE (his most intimate ~ during his college years) 2 : something that is closely connected with or that usu. accompanies another ‡ ACCOMPANIMENT, CONCOMITANT; *esp* : a word or concept linked to another by association (no sooner at any time comes into the understanding but its ~ appears with it —John Locke) 3 *a* : an officer of the superior common-law courts in England ? the judge *b* : a member of a learned society or academy ranking below a fellow (an ~ of the Royal Academy) *c* : a research worker or teacher affiliated with a college, university, or some other professional organization or institution and ranking below a professor or full member (research ~ in anthropology) (~ in German) (~ in medicine) 4 *often cap* *a* : a degree conferred by a junior college upon its graduates (~ in arts) *b* : a degree or title granted by some colleges and universities to students who finish a course that is complete in itself but shorter than that leading to a bachelor's degree

associated state *n, often cap 1&S* [trans. of F *état associé*] : a semi-independent state within the French Union bound to France by special treaties (most of the *associated states* were once protectorates)

associate professor *n* : a faculty member in a college or university who ranks immediately below a professor and above an assistant professor

as-so-ci-a-tion \ə,sōsē'āshən, -,sōsh-, -,sōs- *is somewhat less freq in this than in the other associ- words, by reason of shdissimilation*\ *n* -S [MF or ML; MF *association*, fr. ML *association-, associatio*, fr. L *associatus* (past part. of *associare* to join, unite) + *-ion-, -io* -ion — more at ASSOCIATE] 1 *a* : the act or action of associating (there is no such thing as criminal guilt by ~ in Anglo-American law —Sidney Hook) (the house dog's intimate ~ with people —J.W.Cross) *b* : the quality or state of being associated ‡ COMPANIONSHIP, PARTNERSHIP, CONNECTION, COMBINATION (my four years of close ~ with Alec —Sidney Lovett) (the cerebrospinal fluid, due to its intimate ~ with the central nervous system —H.G.Armstrong) (flint implements in ~ with the remains of the extinct prehistoric cave bear —R.W.Murray) 2 *archaic* : a written pledge to carry out an undertaking (the six men had forged the ~) 3 : an organization of persons having a common interest ‡ SOCIETY, LEAGUE, UNION (the Modern Language *Association* of America); as *a* (1) : a voluntary union of neighboring self-governing local churches of the same denomination (~ of the Baptists) (2) : a stated meeting of the clergymen and other appointed delegates of such churches

EXHIBIT H

UNITED STATES DEPARTMENT OF COMMERCE
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SERIAL NUMBER	FILING DATE	FIRST NAMED APPLICANT	ATTORNEY DOCKET NO.
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JAMES W. FALK
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ART UNIT	PAPER NUMBER
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NOTICE OF ALLOWABILITY

PART I.

1. ☒ This communication is responsive to amendment filed 11/6/89.
2. ☒ All the claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice Of Allowance And Issue Fee Due or other appropriate communication will be sent in due course.
3. ☒ The allowed claims are 1-8.
4. ☐ The drawings filed on _____ are acceptable.
5. ☐ Acknowledgment is made of the claim for priority under 35 U.S.C. 119. The certified copy has [_] been received. [_] not been received. [_] been filed in parent application Serial No. _____, filed on _____.
6. ☐ Note the attached Examiner's Amendment.
7. ☐ Note the attached Examiner Interview Summary Record, PTOL-413.
8. ☒ Note the attached Examiner's Statement of Reasons for Allowance.
9. ☐ Note the attached NOTICE OF REFERENCES CITED, PTO-892.
10. ☐ Note the attached INFORMATION DISCLOSURE CITATION, PTO-1449.

PART II.

A SHORTENED STATUTORY PERIOD FOR RESPONSE to comply with the requirements noted below is set to EXPIRE THREE MONTHS FROM THE "DATE MAILED" indicated on this form. Failure to timely comply will result in the ABANDONMENT of this application. Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

1. ☐ Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL APPLICATION, PTO-152, which discloses that the oath or declaration is deficient. A SUBSTITUTE OATH OR DECLARATION IS REQUIRED.
2. ☒ APPLICANT MUST MAKE THE DRAWING CHANGES INDICATED BELOW IN THE MANNER SET FORTH ON THE REVERSE SIDE OF THIS PAPER.
   a. ☒ Drawing informalities are indicated on the NOTICE RE PATENT DRAWINGS, PTO-948, attached hereto or to Paper No. 3. CORRECTION IS REQUIRED.
   b. ☒ The proposed drawing correction filed on 1/6/89 has been approved by the examiner. CORRECTION IS REQUIRED.
   c. ☐ Approved drawing corrections are described by the examiner in the attached EXAMINER'S AMENDMENT. CORRECTION IS REQUIRED.
   d. ☒ Formal drawings are now REQUIRED.

Any response to this letter should include in the upper right hand corner, the following information from the NOTICE OF ALLOWANCE AND ISSUE FEE DUE: ISSUE BATCH NUMBER, DATE OF THE NOTICE OF ALLOWANCE, AND SERIAL NUMBER.

Attachments:

- _ Examiner's Amendment
- _ Examiner Interview Summary Record, PTOL-413
- X Reasons for Allowance
- _ Notice of References Cited, PTO-892
- _ Information Disclosure Citation, PTO-1449
- _ Notice of Informal Application, PTO-152
- _ Notice re Patent Drawings, PTO-948
- _ Listing of Bonded Draftsmen
- _ Other

Benedict V. Safourek

BENEDICT V. SAFOUREK
PRIMARY EXAMINER
GROUP 263

PTOL-37 (REV. 2-85)

USCOMM-DC 65-37.44

1. The following is an Examiner's Statement of Reasons for Allowance: The prior art fails to disclose or suggest a dual ring communication system wherein sub-rate communications are provided for error or fault handling. In particular, the sending of an error signal on a designated one of the sub-rate channels on one or both rings is not disclosed or suggested by the prior art.

Any comments considered necessary by applicant must be submitted no later than the Payment of the Issue Fee and, to avoid processing delays, should preferably **accompany** the Issue Fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance".

2. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Wellington Chin whose telephone number is (703) 557-8210. Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 557-3321.

Benedict V Safourek

W.Chin
703-557-8210
01/30/89

BENEDICT V SAFOUREK
PRIMARY EXAMINER
GROUP 263